

REMARKS

Applicant has canceled claims 62, 63, 72, 73, 78, and 79, and amended claims 1, 2, 6, 12-15, 17, 18, 30, 32, 35, 39, 42, 55, 57-59, 64, 68, 69, and 76 to more particularly claim the invention. Applicant has provided a marked-up version (Appendix A) of the amended claims showing all changes relative to the previous version of these claims. No new matter has been added by these amendments, which are fully supported by the specification and the original claims. *See, e.g.*, page 9, lines 1-5, and Figs. 3-5. Claims 1-61, 64-71, 74-77, 80, and 81 are presently pending. Applicant respectfully requests that the Examiner reconsider the above-captioned application in view of the foregoing amendments and the following remarks.

1. Examiner's Interview

Applicant would like to thank Examiner Steven Nguyen for the courtesy extended to Applicant's representatives on June 11, 2002, during an in-office interview. Both the Examiner and Applicant's representatives reviewed the prior art and independent claims in detail.

2. 35 U.S.C. § 102(b)

The Office Action rejects claims 1-3, 5-7, 19, 24, 25, 32-35, 40, 46, 50, 55-57, 61, 66, 68-71, 73, 74, 76, 77, 79, and 80 under 35 U.S.C. § 102(b) as being allegedly anticipated by U.S. Patent No. 5,682,604 to Kashi et al. ("Kashi"). Particularly, the Office Action states that "Kashi discloses a base station for providing a forward channel, a remote station for monitoring 'listening or sensing' the forward channel signal and monitoring [reverse] channel within a clear 'free' channel access interval that assigned to the remote units and in sequential order with at least one other remote and providing [reverse] channel signal if it's clear 'free.'" *See* Office Action, page 2, paragraph 3, lines 11-17 (particular Kashi references omitted). Applicant respectfully disagrees.

Claim 1, as presently amended, recites:

"... a plurality of remote stations, wherein each remote station . . . monitors a reverse channel within an assigned period of time in a clear channel assessment interval, . . . said clear channel assessment interval partitioned into multiple periods of time, each period of time assigned to one of said plurality of remote stations. . . ."

As discussed in the specification, each remote station monitors a reverse channel within a unique assigned period of time in a clear channel assessment interval. *See, e.g.*, Specification, page 9, lines 4-5. The clear channel assessment interval is partitioned into multiple periods of time,

each assigned to one of the plurality of remote stations. *See, e.g.*, Specification, page 9, lines 1-4, and Figs. 3-5.

As discussed during the June 11, 2002 interview, Kashi does not disclose remote stations each monitoring a reverse channel during a unique assigned period of time within a clear channel assessment interval. Instead, the system disclosed in Kashi requires that all remote terminal units ("RTU") monitor the channel at the same time during channel assessment. Moreover, the channel assessment period in Kashi is not partitioned into multiple periods of time each assigned to a RTU. Rather, Kashi requires that each RTU be able to receive and understand the data from a transmitting RTU, so that a comparison of priority numbers can be performed. This comparison is then used to calculate a period, only at the expiration of which, does each RTU assess whether or not the transmitting channel is free. *See, e.g.*, Kashi, col. 2, lines 26-40; col. 4, line 22 to col. 5, line 54; and Fig. 5. If the channel is occupied by another RTU at that time, that RTU repeats the comparison and calculation steps, and then waits again before further monitoring. As such, the time at which channel monitoring and assessment begins at a Kashi RTU is at least dependent on or determined by the expiration, *i.e.*, duration, of the central unit transmission and the priority values received from other RTUs attempting to transmit. Therefore, monitoring and assessment will occur at varying unassigned times, a portion of which are employed by more than one RTU. Accordingly, Kashi does not disclose at least the limitation of ". . . a plurality of remote stations, wherein each remote station . . . monitors a reverse channel within an assigned period of time in a clear channel assessment interval, . . . said clear channel assessment interval partitioned into multiple periods of time, each period of time assigned to one of said plurality of remote stations. . . ." Therefore, Applicant maintains that claim 1 is not anticipated by Kashi and respectfully requests that the Examiner withdraw the rejection.

Independent claims 32, 55, 68, 69, and 76 each similarly claim monitoring a reverse channel within an assigned period of time in a clear channel assessment interval, which is partitioned into multiple periods of time each assigned to one remote station. However, as outlined above, Kashi RTUs monitor and assess the reverse channel at varying unassigned times, a portion of which are employed by more than one RTU, calculated based on a priority number of the RTU transmitting that cycle. *See* Kashi, column 3, lines 28-34. Accordingly, Applicant

maintains that Kashi does not disclose all the claimed limitations of claims 32, 55, 68, 69, and 76, and respectfully requests that the Examiner withdraw the rejection of these claims.

Because Applicant submits that independent claims 1, 32, 55, 68, 69, and 76 are not anticipated by Kashi, and claims 73 and 79 have been cancelled, the rejection of dependent claims 2, 3, 5-7, 19, 24, 25, 33-35, 40, 46, 50, 56, 57, 61, 66, 70, 71, 73, 74, 77, 79, and 80 under 35 U.S.C. § 102(b) is rendered moot. Thus, Applicant respectfully requests the Examiner to withdraw the rejection of claims 1-3, 5-7, 19, 24, 25, 32-35, 40, 46, 50, 55-57, 61, 66, 68-71, 74, 76, 77, and 80.

3. 35 U.S.C. § 103(a)

The Office Action rejects claims 4, 8-18, 23, 26-31, 36-39, 41-45, 49-54, 58-60, 62, 63, 65, 67, 72, 75, 78, 81 under 35 U.S.C. § 103(a), as allegedly being unpatentable over Kashi in view of U.S. Patent No. 5,677,909 to Heide. Moreover, the Office Action rejects claims 20-22, 47-48, and 64 under 35 U.S.C. § 103(a), as allegedly being unpatentable over Kashi in view of U.S. Patent No. 5,299,198 to Kay.

Applicant maintains that the Office Action fails to establish a *prima facie* case of obviousness at least because Kashi, either taken alone or in combination, does not teach or suggest all the limitations in independent claims 1, 32, 55, 68, 69, and 76. *See*, 35 U.S.C. § 102(b) remarks, *supra*. Particularly, none of the cited references disclose or suggest “. . . a plurality of remote stations, wherein each remote station . . . monitors a reverse channel within an assigned period of time in a clear channel assessment interval, . . . said clear channel assessment interval partitioned into multiple periods of time, each period of time assigned to one of said plurality of remote stations. . . .” In view of such and the cancellation of claims 62, 63, 72, and 78, Applicant maintains that the rejections of dependent claims 4, 8-18, 20-23, 26-31, 36-39, 41-45, 47-54, 58-60, 62-65, and 67 under 35 U.S.C. § 103 (a) are moot. Applicant respectfully requests that the Examiner withdraw these rejections.

CONCLUSION

Applicant respectfully submits that this application is in condition for allowance, and such disposition is earnestly solicited. If the Examiner believes that the prosecution might be advanced by discussing the application with Applicant's representatives, in person or over the telephone, we would welcome the opportunity to do so.

Applicant believes that no fee is required for the submission of this Response to the non-final Office Action mailed April 25, 2002. Nevertheless, in the event that the U.S. Patent and Trademark Office requires a fee to enter the foregoing amendments and remarks, or to maintain the present application as pending, please charge such fee to the undersigned's Deposit Account No. 50-1640.

Respectfully submitted,

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APPENDIX A

1. (thrice amended) A system, comprising:  
a base station that provides a forward channel signal; and  
a plurality of remote stations, [that] wherein each remote station monitors said forward channel signal, monitors a reverse channel within an assigned period of time in a clear channel assessment interval [and in sequential order with at least one other remote station], and provides a reverse channel signal when said reverse channel is clear within said assigned period of time, wherein said clear channel assessment interval is partitioned into periods of time and each of said periods of time is assigned to one of said plurality of remote stations.
2. (twice amended) The system of claim 1, wherein said base station receives information encoded on said reverse channel signal and wherein [said] each remote station receives information encoded on said forward channel signal.
6. (twice amended) The system of claim 5, wherein [said] each remote station is assigned a unique remote station address and wherein [said] each remote station accepts information encoded on said forward channel signal when said address of said forward channel signal matches said assigned unique remote station address.
12. (once amended) The system of claim 5, wherein [said] one remote station is assigned a first remote station address from a first set of addresses and [another] a second remote station is assigned a second remote station address from a second set of addresses.
13. (once amended) The system of claim 12, wherein said first set of addresses form a first zone and said second set of addresses form a second zone.
14. (once amended) The system of claim 5, wherein [said] each remote station is assigned a remote station address from a set of addresses and said set of addresses form an Internet sub-network.
15. (once amended) The system of claim 1, wherein said [clear channel assessment interval includes] assigned period of time is a predetermined dwell time[s] and wherein each of said remote stations monitor[s] said clear assessment channel interval during said [an assigned] predetermined dwell time.
17. (once amended) The system of claim 15, wherein [said] each remote station is dynamically assigned a dwell time.

18. (once amended) The system of claim 17, wherein said dwell times are assigned to said plurality of remote stations [and another remote station] in a round robin fashion.
30. (twice amended) The system of claim 1, wherein said base station synchronizes with [said] a portion of said plurality of remote stations.
32. (once amended) A method for a single-point to a fixed multi-point system having a base station and a plurality of remote stations, the method comprising the step of:
- transmitting from the base station a forward channel signal;
  - monitoring for said forward channel signal at each of the plurality of remote stations; and
  - monitoring a reverse channel at each of the plurality of remote stations, wherein each of the plurality of remote stations monitors [at an assigned predetermined time] said reverse channel within an assigned period of time [with]in a clear channel assessment interval, wherein said clear channel assessment interval is partitioned into periods of time and each of said periods of time is assigned to one of said plurality of remote stations,
- if said reverse channel is clear during [an assigned predetermined time] said assigned period of time associated with one of the plurality of remote stations and said one of the plurality remote stations has information to send to the base station, transmitting a reverse channel signal from said one of the plurality of remote stations.
35. (once amended) The method of claim 34, wherein said step of assigning unique remote addresses is done a priori.
39. (once amended) The method of claim 38, wherein said first set of addresses form a first zone and said second set of addresses form a second zone.
42. (once amended) The method of claim 32, wherein [said] each assigned period of time is a predetermined [time is a] dwell time [and said channel assessment interval is partitioned into dwell times].
55. (once amended) A single-point to a fixed multi-point system, comprising:
- a base station [means] for transmitting a forward channel signal; and
  - a plurality of remote stations [means], each remote station [for] monitoring [for] said forward channel signal, monitoring a reverse channel [at an assigned predetermined time] within an assigned dwell time in a clear channel assessment interval, and transmitting a reverse channel signal [wherein said means transmits said reverse channel signal] after detecting that said reverse channel is clear [during said predetermined time], wherein said clear channel assessment interval

is partitioned into dwell times, each dwell time assigned to one of said plurality of remote stations, said forward channel signal provided during a predetermined forward channel interval, and said reverse channel signal provided during a predetermined reverse channel interval.

57. (once amended) The system of claim 56, wherein [said] each remote station [means] has a unique remote station address and [said] each remote station [means] accepts said data information when said address information matches said unique address.

58. (once amended) The system of claim 56, wherein [said] one remote station [means] has a first remote station address from a first set of addresses and a second remote station [means] has a second remote station address from a second set of addresses.

59. (once amended) The system of claim 58, wherein said first set of addresses form a first zone and said second set of addresses forms a second zone.

64. The system of claim [63] 55, further including guard times among said forward channel interval, said reverse channel interval, and said clear channel assessment interval.

68. (once amended) A method of communicating with a station, comprising the steps of:

monitoring a forward channel;

monitoring a reverse channel [at] within an assigned predetermined dwell time within a clear channel assessment interval, wherein said clear channel assessment interval is partitioned into a number of dwell times, each dwell time assigned to one of a number of remote stations, said number of dwell times being equal to said number of remote stations; and

transmitting a reverse channel signal after detecting that said reverse channel is clear during said predetermined dwell time, wherein said forward channel signal is provided during a predetermined forward channel interval and said reverse channel signal is provided during a predetermined reverse channel interval.

69. (once amended) A station comprising:

a monitor for monitoring a forward channel signal and monitoring a reverse channel [at an assigned predetermined time] within a clear channel assessment interval, wherein said clear channel assessment interval is partitioned into at least two dwell times, one of said dwell times is assigned to said station with a remainder of said dwell times assigned to other stations, said monitor monitoring said reverse channel only within said dwell time assigned to said station; and

a transmitter for transmitting a reverse channel signal after said monitor detects that said reverse channel is clear during said [predetermined] dwelt time, wherein said forward channel signal is provided during a predetermined forward channel interval and said reverse channel signal is provided during a predetermined reverse channel interval.

76. (once amended) A base station comprising:

a transmitter for transmitting a forward channel signal; and

a receiver for receiving a reverse channel signal from one of a number of remote stations after said remote station detects that [said] a reverse channel is clear during a dwelt time assigned to said remote station [a predetermined time] in a clear channel assessment interval, wherein said clear channel assessment interval is partitioned into a number of dwelt times, said number of dwelt times equal to said number of remote stations, each dwelt time assigned to one remote station, said forward channel signal provided during a predetermined forward channel interval, said reverse channel signal provided during a predetermined reverse channel interval, and said clear channel assessment interval occupies a time between said forward and reverse channel intervals.